

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P880560

Luminaire Tested: **LD4C25D010 EU4259040 4LBDWNH**

Issue Date: 10/4/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P880560
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C25D010 EU4259040 4LBDWNH
Description: 4 INCH 2500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

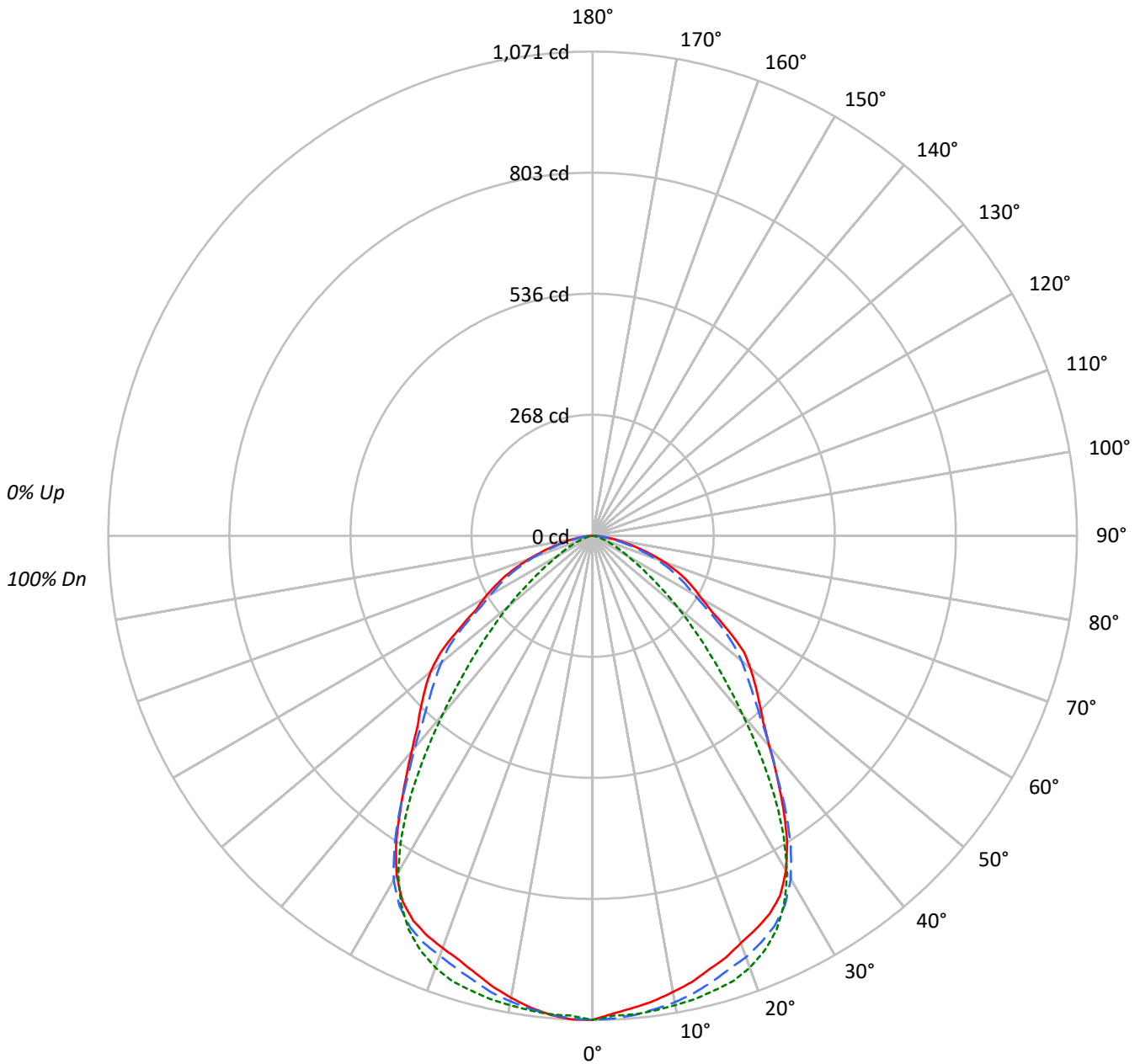
Lumens per Lamp: N/A
Luminaire Lumens: 2179.0 lumens
Efficiency: N/A
Efficacy: 69.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88	88	88	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76	76	76	76
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68	66	66	66	66
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58	58	58	58
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51	51	51	51
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46	46	46	46
7	70	58	50	44	68	57	49	44	56	49	44	54	48	43	53	47	43	41	41	41	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37	37	37	37
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34	34	34	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31	31	31	31

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	131539	131539	131539
5°	129205	131030	131228
10°	127818	131510	129452
15°	126335	132402	127378
20°	125325	132882	126842
25°	125265	130403	127271
30°	121275	121970	122907
35°	110173	104998	111163
40°	97475	82673	99849
45°	90432	62964	93299
50°	86886	46597	89409
55°	78671	32107	77622
60°	68405	21843	68012
65°	66075	15814	62732
70°	59735	10668	53233
75°	49223	7025	42198
80°	39619	4669	31483
85°	32561	2255	20862



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.1	4.6
10°-20°	289.0	13.3
20°-30°	436.6	20.0
30°-40°	456.9	21.0
40°-50°	370.0	17.0
50°-60°	269.2	12.4
60°-70°	166.0	7.6
70°-80°	75.0	3.4
80°-90°	15.2	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	826.6	37.9
0°-40°	1283.5	58.9
0°-60°	1922.8	88.2
0°-90°	2179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2179.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1071	1071	1071	1071	1071	
5°	1048	1064	1062	1062	1064	99
15°	993	1021	1041	1018	1002	281
25°	924	952	962	955	939	423
35°	735	745	700	745	741	458
45°	520	504	362	511	537	405
55°	367	344	150	348	362	328
65°	227	204	54	201	216	222
75°	104	89	15	77	89	113
85°	23	18	2	13	15	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7
2.5°	1057.5	1057.5	1067.4	1078.9	1069.0	1059.1	1065.7	1062.5	1074.0	1074.0	1069.0
5°	1047.7	1050.9	1059.1	1069.0	1060.8	1050.9	1059.1	1055.9	1067.4	1067.4	1064.1
7.5°	1037.7	1039.4	1049.3	1060.8	1052.5	1042.7	1049.3	1047.7	1057.5	1059.1	1055.9
10°	1024.6	1026.2	1036.1	1047.7	1039.4	1031.1	1037.7	1036.1	1049.3	1049.3	1047.7
12.5°	1011.4	1013.0	1022.9	1032.8	1024.6	1016.4	1022.9	1022.9	1036.1	1037.7	1036.1
15°	993.3	996.5	1004.8	1014.6	1009.8	999.8	1006.4	1006.4	1018.0	1021.2	1021.2
17.5°	978.5	980.1	988.3	998.2	991.6	983.3	989.9	989.9	1001.5	1004.8	1004.8
20°	958.6	962.0	970.2	980.1	975.1	968.5	973.5	973.5	986.7	989.9	991.6
22.5°	942.2	945.4	952.0	965.3	957.0	952.0	958.6	957.0	971.9	973.5	973.5
25°	924.1	927.4	935.6	943.8	938.9	934.0	938.9	938.9	950.4	952.0	952.0
27.5°	897.7	899.4	907.6	915.9	910.9	904.3	910.9	909.3	920.7	922.5	920.7
30°	854.9	858.2	861.5	873.0	868.1	863.1	869.7	866.4	878.0	878.0	876.3
32.5°	800.5	800.5	807.2	815.4	808.8	805.4	810.4	812.0	820.3	820.3	815.4
35°	734.6	738.0	742.8	747.8	742.8	739.6	744.6	742.8	752.8	749.4	744.6
37.5°	668.8	670.4	675.4	682.0	675.4	670.4	672.0	670.4	678.6	678.6	670.4
40°	607.8	611.2	614.4	621.0	614.4	611.2	612.8	607.8	617.7	614.4	609.4
42.5°	558.4	560.0	565.0	568.3	561.7	560.0	561.7	558.4	563.3	560.0	550.2
45°	520.5	520.5	522.2	527.1	520.5	518.9	518.9	515.5	520.5	513.9	504.1
47.5°	487.6	489.2	490.9	494.1	489.2	484.3	485.9	479.4	482.6	477.6	464.5
50°	454.6	457.9	459.6	462.8	457.9	454.6	456.3	449.7	449.7	441.5	429.9
52.5°	421.7	423.3	421.7	425.0	421.7	416.8	418.4	411.8	411.8	402.0	390.4
55°	367.3	368.9	370.7	373.9	370.7	365.7	368.9	364.1	364.1	357.4	344.2
57.5°	312.9	314.6	316.3	317.9	317.9	314.6	316.3	312.9	311.3	306.3	296.5
60°	278.4	278.4	278.4	280.0	278.4	276.8	276.8	273.4	273.4	266.8	257.0
62.5°	252.0	253.7	253.7	255.3	253.7	252.0	250.4	247.1	245.5	238.9	230.6
65°	227.3	227.3	225.7	228.9	227.3	225.7	225.7	222.4	219.1	212.5	204.2
67.5°	197.6	199.3	197.6	199.3	199.3	197.6	196.0	192.7	191.1	186.1	176.3
70°	166.3	166.3	166.3	168.1	166.3	166.3	168.1	163.1	161.5	154.8	146.6
72.5°	135.0	136.8	136.8	135.0	136.8	133.4	133.4	133.4	131.8	125.2	116.9
75°	103.7	105.5	105.5	107.1	105.5	103.7	103.7	102.1	100.5	95.5	88.9
77.5°	77.4	77.4	79.0	79.0	79.0	77.4	77.4	74.2	74.2	70.8	64.2
80°	56.0	56.0	54.4	56.0	56.0	54.4	54.4	52.7	52.7	49.4	44.5
82.5°	36.3	37.9	37.9	37.9	37.9	36.3	36.3	36.3	34.5	32.9	29.7
85°	23.1	23.1	23.1	23.1	24.7	23.1	24.7	23.1	23.1	19.8	18.1
87.5°	9.9	9.9	9.9	11.5	11.5	9.9	9.9	9.9	9.9	9.9	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7
2.5°	1069.0	1070.7	1065.7	1072.3	1067.4	1069.0	1070.7	1069.0	1062.5	1062.5	1080.6
5°	1062.5	1065.7	1060.8	1069.0	1065.7	1065.7	1069.0	1067.4	1060.8	1062.5	1078.9
7.5°	1055.9	1060.8	1057.5	1065.7	1060.8	1060.8	1064.1	1064.1	1057.5	1059.1	1074.0
10°	1045.9	1052.5	1050.9	1059.1	1054.2	1054.2	1059.1	1059.1	1052.5	1054.2	1069.0
12.5°	1037.7	1044.3	1042.7	1050.9	1047.7	1049.3	1050.9	1054.2	1045.9	1049.3	1062.5
15°	1024.6	1031.1	1031.1	1039.4	1036.1	1039.4	1042.7	1047.7	1041.0	1041.0	1054.2
17.5°	1009.8	1018.0	1018.0	1024.6	1024.6	1026.2	1032.8	1037.7	1031.1	1032.8	1044.3
20°	993.3	1003.2	1003.2	1011.4	1009.8	1013.0	1018.0	1022.9	1016.4	1016.4	1029.5
22.5°	976.8	985.1	986.7	991.6	991.6	993.3	998.2	1001.5	993.3	993.3	1006.4
25°	953.8	962.0	963.6	966.9	963.6	963.6	966.9	970.2	962.0	962.0	973.5
27.5°	922.5	930.7	930.7	929.0	925.7	927.4	925.7	927.4	919.1	917.5	929.0
30°	876.3	881.2	881.2	879.6	874.6	874.6	869.7	871.4	859.8	859.8	869.7
32.5°	813.8	818.6	815.4	812.0	805.4	802.2	798.9	797.2	785.7	785.7	797.2
35°	739.6	742.8	738.0	731.4	723.1	718.1	713.3	706.7	698.4	700.1	706.7
37.5°	663.8	663.8	657.2	644.1	637.5	629.2	621.0	621.0	607.8	606.2	611.2
40°	599.6	593.0	581.5	563.3	551.8	543.6	532.0	525.5	515.5	515.5	523.8
42.5°	542.0	528.8	513.9	489.2	477.6	467.8	453.0	446.4	434.9	433.2	438.1
45°	490.9	477.6	456.3	429.9	415.1	403.6	382.1	373.9	364.1	362.4	365.7
47.5°	449.7	434.9	408.5	373.9	359.1	344.2	322.8	311.3	303.1	298.1	303.1
50°	413.4	393.7	365.7	329.4	309.7	296.5	270.2	258.6	247.1	243.8	245.5
52.5°	373.9	354.2	324.5	286.6	268.4	248.7	224.0	207.6	197.6	192.7	197.6
55°	331.1	311.3	281.7	243.8	224.0	205.9	179.5	166.3	154.8	149.9	154.8
57.5°	285.0	266.8	240.5	202.6	184.5	168.1	143.3	130.2	118.6	115.3	118.6
60°	245.5	230.6	204.2	168.1	153.2	135.0	113.7	100.5	90.6	88.9	90.6
62.5°	219.1	202.6	177.9	143.3	128.5	113.7	93.9	80.7	72.4	70.8	72.4
65°	192.7	174.6	151.5	121.9	107.1	95.5	75.8	64.2	56.0	54.4	56.0
67.5°	163.1	146.6	126.8	100.5	88.9	77.4	61.0	49.4	42.9	41.2	42.9
70°	135.0	120.2	100.5	80.7	69.2	61.0	46.1	37.9	31.3	29.7	31.3
72.5°	107.1	93.9	77.4	61.0	54.4	46.1	36.3	28.0	23.1	21.4	23.1
75°	82.4	72.4	59.3	44.5	39.5	34.5	24.7	19.8	16.5	14.8	16.5
77.5°	57.6	51.1	41.2	32.9	28.0	24.7	18.1	13.2	11.5	9.9	11.5
80°	39.5	34.5	28.0	21.4	18.1	14.8	11.5	8.2	6.6	6.6	6.6
82.5°	26.3	21.4	16.5	13.2	11.5	9.9	6.6	5.0	5.0	3.3	3.3
85°	14.8	13.2	9.9	8.2	6.6	5.0	3.3	3.3	1.6	1.6	1.6
87.5°	6.6	5.0	3.3	3.3	1.6	1.6	1.6	1.6	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7
2.5°	1075.6	1070.7	1077.2	1070.7	1067.4	1070.7	1067.4	1077.2	1069.0	1062.5	1069.0
5°	1074.0	1067.4	1074.0	1069.0	1064.1	1065.7	1062.5	1072.3	1062.5	1057.5	1060.8
7.5°	1070.7	1065.7	1069.0	1064.1	1059.1	1060.8	1057.5	1065.7	1055.9	1050.9	1054.2
10°	1065.7	1060.8	1062.5	1059.1	1054.2	1054.2	1050.9	1057.5	1045.9	1039.4	1042.7
12.5°	1059.1	1052.5	1055.9	1050.9	1044.3	1044.3	1041.0	1045.9	1034.4	1027.8	1029.5
15°	1050.9	1044.3	1044.3	1039.4	1032.8	1032.8	1026.2	1031.1	1018.0	1011.4	1011.4
17.5°	1041.0	1032.8	1032.8	1027.8	1019.6	1018.0	1013.0	1018.0	1003.2	996.5	996.5
20°	1026.2	1019.6	1018.0	1014.6	1006.4	1004.8	998.2	999.8	988.3	983.3	981.7
22.5°	1006.4	999.8	1001.5	996.5	989.9	988.3	981.7	986.7	975.1	970.2	971.9
25°	971.9	968.5	971.9	970.2	965.3	965.3	962.0	965.3	955.4	952.0	953.8
27.5°	932.3	930.7	932.3	932.3	929.0	929.0	929.0	934.0	924.1	922.5	922.5
30°	874.6	874.6	876.3	878.0	878.0	881.2	879.6	886.2	879.6	876.3	879.6
32.5°	798.9	805.4	810.4	810.4	810.4	813.8	817.0	822.0	815.4	817.0	817.0
35°	713.3	718.1	721.5	729.7	724.8	736.3	739.6	746.2	744.6	747.8	746.2
37.5°	617.7	624.3	630.9	642.5	640.7	653.9	660.5	673.7	670.4	677.0	680.2
40°	528.8	538.6	548.5	556.8	563.3	576.5	589.7	606.2	611.2	616.0	617.7
42.5°	443.1	453.0	469.4	481.0	490.9	512.3	530.4	550.2	555.1	565.0	568.3
45°	373.9	382.1	402.0	416.8	425.0	456.3	477.6	502.4	510.7	522.2	527.1
47.5°	309.7	324.5	344.2	362.4	373.9	406.8	434.9	461.2	472.8	485.9	492.5
50°	253.7	270.2	296.5	312.9	329.4	365.7	397.0	425.0	436.5	451.3	457.9
52.5°	207.6	225.7	250.4	268.4	286.6	324.5	357.4	383.8	398.6	408.5	418.4
55°	163.1	182.8	207.6	227.3	242.1	283.3	311.3	337.6	347.6	355.8	360.7
57.5°	126.8	141.6	166.3	182.8	201.0	237.1	265.2	285.0	293.2	303.1	306.3
60°	98.9	113.7	136.8	153.2	169.7	204.2	232.3	252.0	260.2	268.4	273.4
62.5°	79.0	93.9	115.3	130.2	145.0	176.3	201.0	220.7	230.6	238.9	243.8
65°	62.6	75.8	93.9	108.7	120.2	148.2	172.9	191.1	201.0	209.2	214.2
67.5°	49.4	61.0	77.4	87.3	98.9	121.9	143.3	159.8	168.1	177.9	182.8
70°	37.9	46.1	61.0	69.2	77.4	97.1	113.7	130.2	138.4	145.0	148.2
72.5°	28.0	34.5	46.1	52.7	57.6	74.2	87.3	98.9	105.5	112.0	115.3
75°	19.8	24.7	32.9	37.9	41.2	52.7	64.2	72.4	77.4	82.4	87.3
77.5°	13.2	16.5	21.4	24.7	28.0	36.3	42.9	49.4	54.4	59.3	61.0
80°	8.2	11.5	14.8	16.5	18.1	23.1	29.7	32.9	36.3	39.5	41.2
82.5°	5.0	6.6	8.2	9.9	11.5	14.8	18.1	21.4	23.1	26.3	28.0
85°	1.6	3.3	3.3	5.0	5.0	8.2	9.9	11.5	13.2	14.8	16.5
87.5°	0.0	0.0	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P880560

CATALOG NUMBER: LD4C25D010 EU4259040 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7	1070.7
2.5°	1075.6	1070.7	1067.4	1065.7	1077.2	1062.5	1069.0	1070.7
5°	1069.0	1064.1	1060.8	1059.1	1069.0	1055.9	1060.8	1064.1
7.5°	1059.1	1055.9	1050.9	1049.3	1059.1	1044.3	1050.9	1052.5
10°	1047.7	1042.7	1039.4	1037.7	1045.9	1031.1	1037.7	1037.7
12.5°	1032.8	1029.5	1022.9	1022.9	1029.5	1016.4	1021.2	1021.2
15°	1013.0	1009.8	1003.2	1003.2	1009.8	996.5	1001.5	1001.5
17.5°	996.5	993.3	988.3	986.7	993.3	980.1	985.1	983.3
20°	983.3	980.1	973.5	973.5	978.5	965.3	970.2	970.2
22.5°	971.9	970.2	963.6	963.6	970.2	957.0	960.3	957.0
25°	953.8	952.0	945.4	947.2	950.4	937.2	942.2	938.9
27.5°	924.1	924.1	917.5	915.9	920.7	909.3	912.5	910.9
30°	878.0	879.6	871.4	871.4	873.0	863.1	868.1	866.4
32.5°	815.4	817.0	810.4	808.8	813.8	805.4	808.8	808.8
35°	746.2	747.8	742.8	742.8	747.8	742.8	742.8	741.2
37.5°	677.0	680.2	677.0	678.6	682.0	677.0	680.2	678.6
40°	621.0	624.3	619.4	622.6	625.9	621.0	625.9	622.6
42.5°	569.9	574.9	571.5	574.9	578.1	574.9	578.1	573.3
45°	532.0	535.4	533.7	535.4	538.6	537.0	538.6	537.0
47.5°	495.8	502.4	499.1	502.4	507.3	504.1	507.3	502.4
50°	462.8	467.8	466.2	469.4	471.1	469.4	472.8	467.8
52.5°	420.0	425.0	423.3	423.3	426.6	423.3	426.6	423.3
55°	364.1	365.7	365.7	367.3	365.7	364.1	365.7	362.4
57.5°	309.7	312.9	308.1	312.9	311.3	309.7	309.7	306.3
60°	275.0	280.0	276.8	280.0	278.4	278.4	278.4	276.8
62.5°	247.1	250.4	247.1	248.7	248.7	248.7	247.1	245.5
65°	215.8	220.7	217.4	219.1	217.4	215.8	217.4	215.8
67.5°	184.5	186.1	186.1	184.5	184.5	184.5	184.5	181.2
70°	149.9	151.5	149.9	153.2	151.5	149.9	151.5	148.2
72.5°	116.9	118.6	116.9	118.6	116.9	116.9	116.9	116.9
75°	87.3	88.9	88.9	88.9	88.9	88.9	85.7	88.9
77.5°	62.6	62.6	62.6	64.2	62.6	62.6	62.6	62.6
80°	42.9	42.9	42.9	44.5	42.9	44.5	42.9	44.5
82.5°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
85°	14.8	16.5	16.5	14.8	14.8	14.8	14.8	14.8
87.5°	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)